

ADMINISTRATIVE REGULATIONS

CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 1

ARTICLE 1 – ENERGY BUILDING REGULATIONS

SECTION 10-101 – SCOPE

- (a) This article contains administrative regulations relating to the energy building regulations in Title 24, Part 6. This article applies to all residential and nonresidential buildings.
- (b) Nothing in this article lessens any necessary qualifications or responsibilities of licensed or registered building professionals or other designers or builders, or the duties of enforcement agencies that exist under state or local law.

NOTE: Authority cited: Sections 25402 and 25402.1, Public Resources Code. Reference: Sections 25402 and 25402.1, Public Resources Code.

SECTION 10-102 – DEFINITIONS

In this article the following definitions apply:

ACCEPTANCE REQUIREMENTS are "acceptance requirements for code compliance" as defined in Section 101 (b) of Part 6.

ALTERNATIVE CALCULATION METHOD APPROVAL MANUAL or **ACM MANUAL** is the Alternative Calculation Method (ACM) Approval Manual for the 2005 Energy Efficiency Standards for Nonresidential Buildings, (P400-03-001F) for nonresidential buildings, hotels, and multi-family residential buildings with four or more stories and the Alternative Calculation Method (ACM) Approval Manual for the 2005 Energy Efficiency Standards for Residential Buildings, (P400-03-003) for all single family and low-rise multi-family residential buildings.

APPLIANCE EFFICIENCY REGULATIONS are the regulations in Title 20, Section 1601 et. Seq. of the California Code of Regulations.

APPROVED CALCULATION METHOD is a Public Domain Computer Program approved under Section 10-109 (a), or any Alternative Calculation Method approved under Section 10-109 (b).

BUILDING PERMIT is an electrical, plumbing, mechanical, building, or other permit or approval, that is issued by an enforcement agency, and that authorizes any construction that is subject to Part 6.

COMMISSION is the California State Energy Resources Conservation and Development Commission.

COMPLIANCE APPROACH is any one of the allowable methods by which the design and construction of a building may be demonstrated to be in compliance with Part 6. The compliance approaches are the performance compliance approach and the prescriptive compliance approach. The requirements for each compliance approach are set forth in Section 100 (e) 2 of Part 6.

CONDITIONED FLOOR AREA is the "conditioned floor area" as defined in Section 101 (b) of Part 6.

CRRC-1 is the Cool Roof Rating Council document entitled "Product Rating Program".

ENERGY BUDGET is the "energy budget" as defined in Section 101 (b) of Part 6.

ENFORCEMENT AGENCY is the city, county, or state agency responsible for issuing a building permit.

EXECUTIVE DIRECTOR is the executive director of the commission.

HVAC SYSTEM is the "HVAC system" as defined in Section 101 (b) of Part 6.

MANUFACTURED DEVICE is the "manufactured device" as defined in Section 101 (b) of Part 6.

NFRC 100 is the National Fenestration Rating Council document entitled “NFRC 100: Procedure for Determining Fenestration Product U-factors.” (1997 or November 2002, NFRC 100 includes procedures for site built fenestration formerly included in a separate document, NFRC 100-SB)¹

NFRC 200 is the National Fenestration Rating Council document entitled “NFRC 200: Procedure for Determining Fenestration Product Solar Heat Gain Coefficients and Visible Transmittance at Normal Incidence.” (1995 or November 2002)²

NFRC 400 is the National Fenestration Rating Council document entitled “NFRC 400: Procedure for Determining Fenestration Product Air Leakage.” (1995 or January 2002)³

NSHP GUIDEBOOK is the California Energy Commission document entitled “New Solar Home Partnership Guidebook” that is in effect at the time of application for the building permit.

PART 6 Title 24, Part 6 of the California Code of Regulations.

PUBLIC ADVISER is the Public Adviser of the commission.

R-VALUE is the measure of the thermal resistance of insulation or any material or building component expressed in ft²-hr-°F/Btu.

RECORD DRAWINGS are drawings that document the as installed location and performance data on all lighting and space conditioning system components, devices, appliances and equipment, including but not limited to wiring sequences, control sequences, duct and pipe distribution system layout and sizes, space conditioning system terminal device layout and air flow rates, hydronic system and flow rates, and connections for the space conditioning system. Record drawings are sometimes called “as built.”

NOTE: Authority cited: Sections 25402 and 25402.1, Public Resources Code. Reference: Sections 25402 and 25402.1, Public Resources Code.

SECTION 10-103 – PERMIT, CERTIFICATE, INFORMATIONAL, AND ENFORCEMENT REQUIREMENTS FOR DESIGNERS, INSTALLERS, BUILDERS, MANUFACTURERS, AND SUPPLIERS

(a) Documentation.

1. **Certificate of compliance.** The Certificate(s) of Compliance described in Section 10-103 shall be signed by the person(s) responsible for the building design to certify conformance with Part 6. The signer(s) shall be eligible under Division 3 of the Business and Professions Code to sign such documents. If more than one person has responsibility for building design, each person may sign the document or documents applicable to that portion of the design for which the person is responsible. Alternatively, the person with chief responsibility for design may prepare and sign the document for the entire design.

Subject to the preceding paragraph, persons who prepare energy compliance documentation shall sign a statement that the documentation is accurate and complete.

2. **Application for a building permit.** Each application for a building permit subject to Part 6, shall contain at least one copy of the documents listed in Sections 10-103 (a) 2 A, 10-103 (a) 2 B, and 10-103 (a) 2 C.

¹ Either the 1997 edition or the November 2002 edition may be used for product rating prior to April 1, 2004. Product ratings authorized by NFRC prior to April 1, 2004 are valid for the full certification period. Beginning April 1, 2004 only the November 2002 edition may be used for new product rating.

² Either the 1995 edition or the November 2002 edition may be used for product rating prior to April 1, 2004. Product ratings authorized by NFRC prior to April 1, 2004 are valid for the full certification period. Beginning April 1, 2004 only the November 2002 edition may be used for new product rating.

³ Either the 1995 edition or the January 2002 edition may be used for product rating prior to April 1, 2004. Product ratings authorized by NFRC prior to April 1, 2004 are valid for the full certification period. Beginning April 1, 2004 only the January 2002 edition may be used for new product rating.

- A. For all newly constructed buildings additions, alterations or repairs regulated by Part 6, the applicant shall file the appropriate Certificate(s) of Compliance on the plans. The certificate(s) shall indicate the features and performance specifications needed to comply with Part 6, and shall be approved by the local enforcement agency by stamp or authorized signature. The Certificate(s) of Compliance and supporting documentation shall be readily legible and of substantially similar format and informational order and content to the appropriate Certificate(s) of Compliance and supporting documentation in the appropriate Residential or Nonresidential Manual, as defined in Part 6.
 - B. Plans and specifications submitted with each application for a building permit shall show the characteristics of each feature, material, component, and manufactured device proposed to be installed in order to have the building meet the requirements of Part 6, and of any other feature, material, component, or manufactured device that Part 6 requires be indicated on the plans and specifications. Plans and specifications submitted with each application for a building permit for Nonresidential buildings, Highrise Residential buildings and Hotels and Motels shall provide acceptance requirements for code compliance of each feature, material, component or manufactured device when acceptance requirements are required under Part 6. Plans and specifications for Nonresidential buildings, Highrise Residential buildings and Hotels and Motels shall require that within 90 days after the Enforcement Agency issues a final occupancy permit, record drawings be provided to the building owner. If any characteristic is materially changed before final construction and installation, such that the building may no longer comply with Part 6, the building must be brought back into compliance, and so indicated on amended plans, specifications, and Certificate(s) of Compliance and shall be submitted to the enforcement agency. Such characteristics shall include the efficiency (or other characteristic regulated by Part 6) of each device.
 - C. All documentation necessary to demonstrate compliance for the building, and of the sections of Part 6 with which the building is intended to comply shall be submitted with each application for a building permit. The forms used to demonstrate compliance shall be readily legible and of substantially similar format and informational order and content to the appropriate forms in the Residential or Nonresidential Manual, as defined in Part 6.
3. **Installation certificate.**
- A. The person with overall responsibility for construction or the person or persons responsible for the installation of regulated manufactured devices shall submit to the enforcement agency for filing with the building plans, and shall post, or make available with the building permit(s) issued for the building, a copy of the Installation Certificate(s) for manufactured devices regulated by the Appliance Efficiency Regulations or Part 6. Such Installation Certificate(s) shall be made available to the enforcement agency for all appropriate inspections.
These certificates shall:
 - i. Identify features required to verify compliance with the Appliance Efficiency Regulations and Part 6.
 - ii. Include a statement indicating that the installed devices conform to the Appliance Efficiency Regulations and Part 6 and the requirements for such devices given in the plans and specifications approved by the local enforcement agency.
 - iii. State the number of the building permit under which the construction or installation was performed.
 - iv. Be signed by the individual eligible under Division 3 of the Business and Professions Code to accept responsibility for construction, or their authorized representative. If more than one person has responsibility for building construction, each person may prepare and sign the part of the document applicable to the portion of construction for which they are responsible; alternatively, the person with chief responsibility for construction may prepare and sign the document for the entire construction.
 - B. The enforcement agency may require the person with overall responsibility for the construction to provide any other reasonable information to determine that the building as constructed is consistent with approved plans and specifications and complies with Part 6.
 - C. If construction on any portion of the building subject to Part 6 will be impossible to inspect because of subsequent construction, the enforcement agency may require the Installation Certificate(s) to be posted upon completion of that portion.

4. **Insulation certificate.** After installing wall, ceiling, or floor insulation, the installer shall make available to the enforcement agency or post in a conspicuous location in the building a certificate signed by the installer stating that the installation is consistent with the plans and specifications described in Section 10-103 (a) 2 A and for which the building permit was issued and conforms with the requirements of Part 6. The certificate shall also state the manufacturer's name and material identification, the installed R-value, and (in applications of loose fill insulation) the minimum installed weight per square foot consistent with the manufacturer's labeled installed design density for the desired R-value.

EXCEPTION to Section 10-103 (a): Enforcing agencies may exempt nonresidential buildings that have no more than 1,000 square feet of conditioned floor area in the entire building and an occupant load of 49 persons or less from the documentation requirements of Section 10-103 (a), provided a statement of compliance with Part 6 is submitted and signed by a licensed engineer or the licensed architect with chief responsibility for the design.

- (b) **Certificate of Acceptance.** For all new Nonresidential buildings, High-rise Residential buildings and Hotels and Motels designated to allow use of an occupancy group or type regulated by Part 6, the applicant shall file Certificate(s) of Acceptance with the enforcement agency prior to receiving a final occupancy permit. The signer (s) shall be eligible under Division 3 of the Business and Professions code to sign such documents. The Certificate(s) shall be readily legible and of substantially similar format and informational order and content to the Certificate(s) of Acceptance in the Nonresidential Manual, as defined in Part 6. The Certificate(s) shall be approved by the local enforcement agency by stamp or authorized signature and shall indicate that:

1. The applicant has demonstrated acceptance requirements as indicated in the plans and specifications submitted under section 10-103(a);
2. Installation certificates described in section 10-103(a)3 are posted, or made available with the building permit(s) issued for the building; and
3. That operating and maintenance information described in sections 10-103(b) and 10-103(c) were provided to the building owner.

- (c) **Operating and Maintenance Information to be provided by Builder.**

1. **Operating information.** The builder shall provide the building owner at occupancy the appropriate Certificate(s) of Compliance and a list of the features, materials, components, and mechanical devices installed in the building and instructions on how to operate them efficiently. The instructions shall be consistent with specifications set forth by the executive director.

For low-rise residential buildings, such information shall, at a minimum, include information indicated on forms Certificate of Compliance (CF-1R), Mandatory Measures (MF-1R), Installation Certificate (CF-6R), Insulation Certificate (IC-1), and a manual which provides all information specified in this Section 10-103 (b). The *Home Energy Manual* (P400-92-031, July 1992) may be used to meet the requirement for providing this manual.

For nonresidential buildings, high-rise residential buildings and hotels and motels, such information shall, at a minimum, include information required by the Certificates of Compliance, Certificate of Acceptance, forms ENV-1, MECH-1 and LTG-1, an Installation Certificate and an Insulation Certificate.

For dwelling units, buildings or tenant spaces which are not individually owned and operated, or are centrally operated, such information shall be provided to the person(s) responsible for operating the feature, material, component, or mechanical device installed in the building.

2. **Maintenance information.** The builder shall provide to the building owner at occupancy maintenance information for all features, materials, components, and manufactured devices that require routine maintenance for efficient operation. Required routine maintenance actions shall be clearly stated and incorporated on a readily accessible label. The label may be limited to identifying, by title and/or publication number, the operation and maintenance manual for that particular model and type of feature, material, component, or manufactured device.

For dwelling units, buildings or tenant spaces which are not individually owned and operated, or are centrally operated, such information shall be provided to the person(s) responsible for maintaining the feature, material, component, or mechanical device installed in the building.

3. **Ventilation information.** For nonresidential buildings, the builder shall provide the building owner at occupancy a description of the quantities of outdoor and recirculated air that the ventilation systems are designed

to provide to each area. For buildings or tenant spaces which are not individually owned and operated, or are centrally operated, such information shall be provided to the person(s) responsible for operating and maintaining the feature, material, component, or mechanical device installed in the building.

- (d) **Equipment Information to be Provided by Manufacturer or Supplier.** The manufacturer or supplier of any manufactured device shall, upon request, provide to building designers and installers information about the device. The information shall include the efficiency (and other characteristics regulated by Part 6).

(e) **Enforcement Agency Requirements.**

1. **Permits.** An enforcement agency shall not issue a building permit for any construction unless the enforcement agency determines in writing that the construction is designed to comply with the requirements of Part 6 that are in effect on the date the building permit was applied for.

If a building permit has been previously issued, there has been no construction under the permit, and the permit has expired, the enforcement agency shall not issue a new permit unless the enforcement agency determines in writing that the construction is designed to comply with the requirements of Part 6 in effect on the date the new permit is applied for.

“Determines in writing” includes, but is not limited to, approval of a building permit with a stamp normally used by the enforcement agency.

2. **Inspection.** The enforcement agency shall inspect new construction to determine whether it is consistent with the agency's approved plans and specifications, and complies with Part 6. Final occupancy permits shall not be issued until such consistency is verified. For Occupancy Group R-3, final inspection shall not be complete until such consistency is verified.

Such verification shall include determining that all installed manufactured devices, regulated by the Appliance Efficiency Regulations or Part 6, are indicated on the Installation Certificate and are consistent with approved plans. This certificate shall include information specified in Section 10-103 (a) (3) (A). The building department shall not approve the building until the building department has received an Installation Certificate that has been signed and dated by the person or persons responsible for the installation.

For buildings that have used a compliance option that requires field verification and diagnostic testing, the building department shall not approve the building until the building department has received a Certificate of Field Verification and Diagnostic Testing that has been signed and dated by the HERS Rater.

EXCEPTION to Section 10-103(e): For buildings that meet the requirements of the New Solar Homes Partnership (NSHP) as specified in the NSHP Guidebook, the enforcement agency may waive the plan check and inspection of all measures other than the mandatory measures in the building.

NOTE: Authority cited: Section 25402, Public Resources Code. Reference: Section 25402, Public Resources Code.

SECTION 10-104 – EXCEPTIONAL DESIGNS

NOTE: See Section 10-109 for approval of calculation methods and Alternative Component Packages.

- (a) **Requirements.** If a building permit applicant proposes to use a performance compliance approach, and the building designs cannot be adequately modeled by an approved calculation method, an applicant shall be granted a building permit if the commission finds:
1. That the design cannot be adequately modeled with an approved calculation method;
 2. Using an alternative evaluation technique, that the design complies with Part 6; and
 3. That the enforcement agency has determined that the design complies with all other legal requirements.
- (b) **Applications.** The applicant shall submit four copies of a signed application with the following materials to the executive director:
1. A copy of the plans and specifications required by Section 10-103 (a) 2 A;
 2. A statement explaining why meeting the energy budget cannot be demonstrated using an approved calculation method;

3. Documentation from the enforcement agency stating that:
 - A. Meeting the energy budget requirements cannot be demonstrated using an approved calculation method, and
 - B. The design complies with all other legal requirements; and
4. A detailed evaluation of the energy consumption of the proposed building and the building's materials, components, and manufactured devices proposed to be installed to meet the requirements of Part 6, using an alternative evaluation technique. The evaluation shall include a copy of the technique, instructions for its use, a list of all input data, and all other information required to replicate the results.

NOTE: Authority cited: Sections 25402 and 25402.1, Public Resources Code. Reference: Sections 25402 and 25402.1, Public Resources Code.

SECTION 10-105 – ENFORCEMENT BY THE COMMISSION

- (a) **Where there is No Local Enforcement Agency.** Before new construction may begin in an area where there is no local enforcement agency, ~~and on any proposed governmental agency building for which there is no enforcement agency,~~ the executive director ~~must shall~~ determine in writing that the building design conforms to the requirements of Part 6. The person proposing to construct the building shall submit the information described in Section 10-103 (a) 2 and 10-103 (a) 3 to the executive director when such a determination is sought.
- ~~(b) **Where the Enforcement Agency is a State Agency.** No construction of any state building, or any other building subject to enforcement by a state agency, shall commence until the Department of General Services or the state agency that otherwise has jurisdiction over the property reviews the plans for the proposed building and certifies to the Commission's Executive Director that the plans conform to the requirements of Part 6 and the information described in Section 10-103 (a) 2 and 10-103 (a) 3 has been submitted to the state agency. Each state agency shall designate the person in the agency who shall be responsible for enforcement of the requirements of Part 6 and shall notify the Commission's Executive Director. The Commission's Executive Director shall annually update a list of persons responsible for enforcement of the requirements of Part 6.~~
- ~~(bc)~~ **Where the ~~Local~~ Enforcement Agency Fails to Enforce.** If ~~an local~~ enforcement agency fails to enforce the requirements of this article or of Part 6, the commission, after furnishing 10 days written notice, may condition building permit issuance on submission of the information described in Sections 10-103 (a) 2 and 10-103 (a) 3 to the executive director and on his or her written determination that proposed construction conforms to the requirements of Part 6.

NOTE: Authority cited: Section 25402.1, Public Resources Code. Reference: Section 25402.1, Public Resources Code.

SECTION 10-106 – LOCALLY ADOPTED ENERGY STANDARDS

- (a) **Requirements.** Local governmental agencies may adopt and enforce energy standards for newly constructed buildings, addition, alterations, and repairs provided the commission finds that the standards will require buildings to be designed to consume no more energy than permitted by Part 6. Such local standards include, but are not limited to, adopting the requirements of Part 6 before their effective date, requiring additional energy conservation measures, or setting more stringent energy budgets. Local adoption of the requirements of Part 6 before their effective date is a sufficient showing that the local standards meet the requirements of this section and Section 25402.1 (f) (2) of the Public Resources Code; in such a case only the documentation listed in Section 10-106 (b), and a statement that the standards are those in Part 6, need be submitted.
- (b) **Documentation Application.** Local governmental agencies wishing to enforce locally adopted energy conservation standards shall submit four copies of an application with the following materials to the executive director:
 1. The proposed local energy standards.
 2. A study with supporting analysis showing how the local agency determined energy savings.
 3. A statement that the local standards will require buildings to be designed to consume no more energy than permitted by Part 6.
 4. The basis of the agency's determination that the standards are cost effective.

NOTE: Authority cited: Section 25402.1, Public Resources Code. Reference: Section 25402.1, Public Resources Code.

SECTION 10-107 – INTERPRETATIONS

- (a) The commission may make a written determination as to the applicability or interpretation of any provision of this article or of Part 6, upon written application, if a dispute concerning a provision arises between an applicant for a building permit and the enforcement agency, and the dispute has been heard by the local board of permit appeals or other highest local review body. Notice of any such appeal, including a summary of the dispute and the section of the regulations involved, shall if possible be sent to the commission by the enforcing agency 15 days before the appeal is heard, and the result of the appeal shall be sent to the commission within 15 days after the decision is made. Either party to the dispute may apply for a determination but shall concurrently deliver a copy of the application to the other party. The determinations are binding on the parties.
- (b) The executive director may, upon request, give written advice concerning the meaning of any provision of this article or of Part 6. Such advice is not binding on any person.

NOTE: Authority cited: Section 25402.1, Public Resources Code. Reference: Section 25402.1, Public Resources Code.

SECTION 10-108 – EXEMPTION

- (a) **Requirements.** The commission may exempt any building from any provision of Part 6 if it finds that:
 - 1. Substantial funds had been expended in good faith on planning, designing, architecture, or engineering of the building before the adoption date of the provision.
 - 2. Compliance with the requirements of the provision would be impossible without both substantial delays and substantial increases in costs of construction above the reasonable costs of the measures required to comply with the provision.
- (b) **Application.** The applicant shall submit four copies of a signed application with the following materials to the executive director:
 - 1. A summary of the claimant's contracts for the project;
 - 2. A summary of internal financial reports on the project;
 - 3. Dated schedules of design activities; and
 - 4. A progress report on project completion.

NOTE: Authority cited: Section 25402.1, Public Resources Code. Reference: Section 25402.1, Public Resources Code.

SECTION 10-109 – CALCULATION METHODS AND ALTERNATIVE COMPONENT PACKAGES

NOTE: See Section 10-104 for approval of exceptional designs.

- (a) **Public Domain Computer Programs.** In addition to the present approved public domain computer programs, the commission may, upon written application or its own motion, approve additional public domain computer programs that may be used to demonstrate that proposed building designs meet energy budgets.
 - 1. The commission shall ensure that users' manuals or guides for each approved program are available.
 - 2. The commission shall approve a program only if, when it models building designs or features, it predicts energy consumption substantially equivalent to that predicted by the public domain computer program.
- (b) **Alternative Calculation Methods (All Occupancies).** In addition to public domain computer programs, the commission may approve alternative calculation methods (ACMs) that applicants for building permits may then use to demonstrate compliance with the performance standards (energy budgets) in Part 6.
 - 1. **General requirements.** To obtain approval for an ACM, the proponent shall submit an application that demonstrates that the ACM:
 - A. Makes no changes in any input parameter values specified by the commission in Item 2 below;

- B. Provides input and output documentation that facilitates the enforcement agency's review and meets the formatting and content criteria found in the Residential or Nonresidential ACM Manual;
- C. Is supported by clear and concise instructions for using the method to demonstrate that the energy budget requirements of Part 6 are met; and
- D. Is reliable and accurate relative to the appropriate public domain computer program;

2. **Procedural requirements for alternative calculation methods.** In order to obtain approval of an ACM, the applicant must comply with the requirements, specifications, and criteria set forth in the Residential or Nonresidential ACM Manual. The ACM Manuals specify application requirements, minimum modeling capabilities, required output forms and instructions, input assumptions, testing requirements, test approval criteria, vendor requirements, and other related requirements. The requirements, specifications, and criteria in the 2005 Residential or Nonresidential ACM Manuals are hereby incorporated by reference.

NOTE: Copies of the ACM Manuals may be obtained from the Energy Commission's website at www.energy.ca.gov.

3. **Application.** The applicant shall submit four copies of a signed application form specified by the executive director. The application shall include the following materials:
- A. The method's analytical capabilities and limitations with respect to the occupancies, designs, materials, and devices covered by Part 6;
 - B. A demonstration that the criteria in Section 10-109 (b) are met;
 - C. Each of the items on the "Application Checklist" in the Residential or Nonresidential ACM Manual; and
 - D. An initial fee of ~~two-one~~ thousand dollars (\$~~21~~000). The total fee shall cover the commission's cost of reviewing and analyzing the proposed method. After the commission determines the total costs, if the costs exceed the initial fee, the commission shall assess additional fees to cover those costs; if the costs are less than the initial fee, the commission shall refund the difference to the applicant.
4. **Exceptional methods.** If the alternative calculation method analyzes designs, materials, or devices that cannot be adequately modeled using the public domain computer programs, the method may be approved as an exceptional method. Applications for approval of exceptional methods shall include theoretical and empirical information that verify the method's accuracy, and shall also include the other documentation and fees required by Subsection 10-109 (b).
5. **Approval.** The commission may approve a method unconditionally, may restrict approval to specified occupancies, designs, materials, or devices, or may reject the application.
6. **Resubmittal.** An applicant may resubmit a rejected method or may request modification of a restricted approval. Such application shall include the information specified in Section 10-109 (b) and shall indicate how the method has been changed to enhance its accuracy or capabilities.
7. **Modification.** Whenever an approved calculation method is changed in any way, the method shall be resubmitted under this section for reapproval. The executive director may waive any of the requirements of this paragraph for nonsubstantive changes.
- (c) The commission may modify or withdraw certification of a program or method under Section 10-109 (a) or 10-109 (b) based on approval of other programs or methods that are more suitable.
- (d) **Alternative Component Packages.** The commission may approve any alternative component package, in addition to the packages in Sections 143 (a) and 151 (f) of Part 6, which it determines will meet the energy budgets and is likely to apply to a significant percentage of newly constructed buildings or to a significant segment of the building construction and design community. Applications for approval of packages shall use application forms specified by the executive director and shall be subject to the same fee requirements set forth in Subsection (b).
- (e) **Publication of Commission Determinations.** The executive director shall annually publish a manual, newsletter, or other administrative guide containing determinations made by the commission pursuant to this section on or before December 31 of the calendar year.

NOTE: Authority cited: Section 25402.1, Public Resources Code. Reference: Section 25402.1, Public Resources Code.

SECTION 10-110 – PROCEDURES FOR CONSIDERATION OF APPLICATIONS UNDER SECTIONS 10-104, 10-106, 10-108, AND 10-109

- (a) If the application is complete, the executive director shall make the application available to interested parties. Comments from interested parties must be submitted within 60 days after acceptance of the application.
- (b) Within 75 days of receipt of an application, the executive director may request any additional information needed to evaluate the application. If the additional information is incomplete, consideration of the application will be delayed until the applicant submits complete information.
- (c) Within 75 days of receipt of the application, the executive director may convene a workshop to gather additional information from the applicant and other interested parties. Interested parties will have 15 days after the workshop to submit additional information regarding the application.
- (d) Within 90 days after the executive director receives the application, or within 30 days after receipt of complete additional information requested under Section 10-110 (b), or within 60 days after the receipt of additional information submitted by interested parties under Section 10-110 (c), whichever is later, the executive director shall submit to the commission a written recommendation on the application.
- (e) The application and the executive director's recommendation shall be placed on the consent calendar and considered at the next business meeting after submission of the recommendation. The matter may be removed from the consent calendar at the request of any person.
- (f) The executive director may charge a fee to recover the costs of processing and reviewing applications.
- (g) All applicants have the burden of proof to establish that their applications should be granted.

NOTE: Authority cited: Section 25402.1, Public Resources Code. Reference: Section 25402.1, Public Resources Code.

SECTION 10-111 – CERTIFICATION AND LABELING OF FENESTRATION PRODUCT U-FACTORS, SOLAR HEAT GAIN COEFFICIENTS AND AIR LEAKAGE

This section establishes rules for implementing labeling and certification requirements relating to U-factors, solar heat gain coefficients (SHGCs) and air leakage for fenestration products under Section 116 (a) of Title 24, California Code of Regulations, Part 6. This section also provides for designation of the National Fenestration Rating Council (NFRC) as the supervisory entity responsible for administering the state's certification program for fenestration products, provided NFRC meets specified criteria.

(a) Labeling Requirements.

1. **Temporary labels.** Every manufactured and site-built fenestration product or fenestration system installed in construction subject to Title 24, Part 6 shall have attached to it a clearly visible temporary label or have an associated label certificate that lists the U-factor, the solar heat gain coefficient (SHGC) of that product and the method used to derive those values, and manufactured fenestration certifies compliance with air leakage requirements of Section 116 (a) 1.
 - A. Fenestration products rated and certified using NFRC 100, NFRC 200 or NFRC 400 Rating Procedures. The manufacturer shall stipulate that the ratings were determined in accordance with applicable NFRC procedures. For manufactured fenestration products, a temporary label approved by the supervisory entity meets the requirements of this section. For site-built fenestration products, a label certificate approved by the supervisory entity meets the requirements of this section.
 - B. Fenestration products rated using a default value approved by the commission. For manufactured fenestration products, a temporary label with the words "CEC Default U-factor," followed by the appropriate default U-factor specified in section 116 (a) 2 and with the words "CEC Default SHGC," followed by the appropriate default SHGC specified in section 116 (a) 3 meets the requirements of this section. For site-built fenestration products, a default label certificate approved by the commission meets the requirements of this section.
 - C. The temporary label shall also certify that the product complies with the air leakage requirements of Section 116 (a) 1 of the standards.

2. **Permanent labels.** If a product is rated using the NFRC Rating Procedure, it shall have a permanent label that is either a stand-alone label, an extension or tab of an existing permanent certification label being used by the manufacturer/responsible party, or series of marks on the product. The permanent label, coupled with observable product characteristics, can be used to trace the product to certification information on file with the supervisory entity or to a directory of certified products, published by the supervisory entity. For site-built fenestration products, a label certificate approved by the supervisory entity meets the requirements of this section.

EXCEPTION to Section 10-111 (a): Field-fabricated fenestration products.

(b) Certification Requirements.

1. **Certification to default ratings.** If a product's U-factor and SHGC are default values approved by the commission as specified in sections 116 (a) 2 and 116 (a) 3), the U-factor and SHGC shall be certified by the manufacturer.
 - A. A temporary label, affixed to the product, that meets the requirements of Section 10-111 (a) 1 B meets this requirement.
 - B. If the product claims the default U-factor for a thermal-break product, the manufacturer shall also certify on the label that the product meets the thermal-break product criteria, specified on the default table, on which the default value is based. Placing the terms "Meets Thermal-Break Default Criteria" on the default temporary label or default label certificate meets this requirement.
2. **Certification to NFRC rating procedure.** If a product's U-factor or SHGC is based on the NFRC Rating Procedure, the U-factor or SHGC shall be certified by the manufacturer according to the procedures of an independent certifying organization approved by the commission.
 - A. A temporary label, affixed to the product or label certificate for site-built fenestration, meeting the requirements of Section 10-111 (a) certified by the independent certifying organization complies with this requirement.
 - B. An "independent certifying organization approved by the commission" means any organization authorized by the supervisory entity to certify U-factor ratings and solar heat gain coefficient ratings in accordance with the NFRC Rating Procedure. If the commission designates the NFRC as the supervisory entity, any independent certification and inspection agency (IA) licensed by NFRC shall be deemed to be an "independent certifying organization approved by the commission."
 - C. The "supervisory entity" means the National Fenestration Rating Council (NFRC), except as provided in paragraph (c) 1.

EXCEPTION to Section 10-111 (b): Field-fabricated fenestration products.

- (c) **Designation of Supervisory Entity.** The National Fenestration Rating Council shall be the supervisory entity to administer the certification program relating to U-factors and solar heat gain coefficient ratings for fenestration products, provided the commission determines that the NFRC meets the criteria in paragraph (d).
 1. The commission may consider designating a supervisory entity other than NFRC only if the commission determines that the NFRC cannot meet the criteria in paragraph (d). Such other supervisory entity shall meet the criteria in paragraph (d) prior to being designated.
 2. The commission shall periodically review, at least annually, the structure and operations of the supervisory entity to ensure continuing compliance with the criteria in paragraph (d).

(d) **Criteria for Supervisory Entity.**

1. Membership in the entity shall be open on a nondiscriminatory basis to any person or organization that has an interest in uniform thermal performance ratings for fenestration products, including, but not limited to, members of the fenestration industry, glazing infill industry, building industry, design professionals, specifiers, utilities, government agencies, and public interest organizations. The membership shall be composed of a broad cross section of those interested in uniform thermal performance ratings for fenestration products.
2. The governing body of the entity shall reflect a reasonable cross-section of the interests represented by the membership.

3. The entity shall maintain a program of oversight of product manufacturers, laboratories, and independent certifying organizations that ensures uniform application of the NFRC Rating Procedures, labeling and certification, and such other rating procedures for other factors affecting energy performance as the NFRC and the commission may adopt.
 4. The entity shall require manufacturers and independent certifying organizations within its program to use only laboratories accredited by the supervisory entity to perform simulations and tests under the NFRC Rating Procedure.
 5. The entity shall maintain appropriate guidelines for testing and simulation laboratories, manufacturers, and certifying agencies, including requirements for adequate:
 - A. Possession and calibration of equipment;
 - B. Education, competence, and training of personnel;
 - C. Quality control;
 - D. Record keeping and reporting;
 - E. Periodic review (including, but not limited to, blind testing by laboratories; inspections of products; and inspections of laboratories, manufacturing facilities, and certifying agencies);
 - F. Challenges to certified ratings; and
 - G. Guidelines to maintain the integrity of the program, including, but not limited to, provisions to avoid conflicts of interest within the rating and certification process.
 6. The entity shall be a nonprofit organization and shall maintain reasonable, nondiscriminatory fee schedules for the services it provides and shall make its fee schedules, the financial information on which fees are based, and financial statements available to its members for inspection.
 7. The entity shall provide hearing processes that give laboratories, manufacturers, and certifying agencies a fair review of decisions that adversely affect them.
 8. The entity shall maintain a certification policy committee whose procedures are designed to avoid conflicts of interest in deciding appeals, resolving disputes, and setting policy for the certifying organizations in its program.
 9. The entity shall publish at least annually a directory of products certified and decertified within its program.
 10. The entity itself shall be free from conflict-of-interest ties or to undue influence from any particular fenestration manufacturing interest(s), testing or simulation lab(s), or independent certifying organization(s).
 11. The entity shall provide or authorize the use of labels and label certificates for site-built fenestration products that can be used to meet the requirements of Section 116 (a) 1 and 2, and this section.
 12. The entity's certification program shall allow for multiple participants in each aspect of the program to provide for competition between manufacturers, between testing labs, between simulation labs, and between independent certifying organizations.
- (e) **Certification for Other Factors.** Nothing in this section shall preclude any entity, whether associated with a U-factor and SHGC certification program or not, from providing certification services relating to factors other than U-factors and SHGC for fenestration products.

NOTE: Authority cited: Section 25402.1, Public Resources Code. Reference: Section 25402.1, Public Resources Code.

SECTION 10-112 – CRITERIA FOR DEFAULT TABLES

- (a) The commission shall maintain tables of default U-factors and SHGCs for use as an alternative to U-factors and SHGCs derived ~~using based on the NFRC rating procedure~~ ASHRAE 2005 Handbook of Fundamentals. The default values shall meet the following criteria:
 1. The values shall be derived from simulations of products using the same computer simulation program(s) used in the NFRC Rating Procedure.

2. The default values shall be set so that they do not provide to any significant number of products a lower U-factor or SHGC than those products would obtain if they were rated using the full NFRC Rating Procedure, ~~including testing and simulation.~~

(b) The commission shall periodically review and revise the default tables as necessary to ensure that the criteria are met.

NOTE: Authority cited: Section 25402.1, Public Resources Code. ~~Reference: Section 25402.1, Public Resources Code.~~

SECTION 10-113 – CERTIFICATION AND LABELING OF ROOFING PRODUCT REFLECTANCE AND EMITTANCE

This section establishes rules for implementing labeling and certification requirements relating to reflectance and emittance for roofing products for showing compliance with Sections 141, 142, and 151 (b) of Title 24, California Code of Regulations, Part 6. This section also provides for designation of the Cool Roof Rating Council (CRRC) as the supervisory entity responsible for administering the state's certification program for roofing products, provided CRRC meets specified criteria.

(a) Labeling Requirements.

Every roofing product installed in construction to take compliance credit for reflectance and emittance under Sections 141, 142, and 151 (b) shall have a clearly visible packaging label that lists the reflectance and emittance tested in accordance with CRRC-1.

Packaging for liquid applied roof coatings shall state the product meets the requirements specified in Section 118 (i) 3.

(b) Certification Requirements.

Every roofing product installed in construction to take compliance credit for reflectance and emittance under Sections 141, 142, and 151 (b) shall be certified by CRRC or another supervisory entity approved by the commission pursuant to Section 10-113 (c).

- (c) **Designation of Supervisory Entity.** The Cool Roof Rating Council shall be the supervisory entity to administer the certification program relating to reflectance and emittance ratings for roofing products, provided the commission determines that the CRRC meets the criteria in paragraph (d).

1. The commission may consider designating a supervisory entity other than CRRC only if the commission determines that the CRRC cannot meet the criteria in paragraph (d). Such other supervisory entity shall meet the criteria in paragraph (d) prior to being designated.
2. The commission shall periodically review, at least annually, the structure and operations of the supervisory entity to ensure continuing compliance with the criteria in paragraph (d).

(d) Criteria for Supervisory Entity.

1. Membership in the entity shall be open on a nondiscriminatory basis to any person or organization that has an interest in uniform performance ratings for roofing products, including, but not limited to, members of the roofing industry, building industry, design professionals, specifiers, utilities, government agencies, and public interest organizations. The membership shall be composed of a broad cross section of those interested in uniform thermal performance ratings for roofing products.
2. The governing body of the entity shall reflect a reasonable cross-section of the interests represented by the membership.
3. The entity shall maintain a program of oversight of product manufacturers, laboratories, and independent certifying organizations that ensures uniform application of the CRRC testing and rating procedures, labeling and certification, and such other rating procedures for other factors affecting energy performance as the CRRC and the commission may adopt.
4. The entity shall require manufacturers and independent certifying organizations within its program to use only laboratories accredited by the supervisory entity to perform tests under the CRRC rating procedure.

5. The entity shall maintain appropriate guidelines for testing laboratories and manufacturers, including requirements for adequate:
 - A. Possession and calibration of equipment;
 - B. Education, competence, and training of personnel;
 - C. Quality control;
 - D. Record keeping and reporting;
 - E. Periodic review (including but not limited to, blind testing by laboratories; inspections of products; inspections of laboratories, and manufacturing facilities);
 - F. Challenges to certified ratings; and
 - G. Guidelines to maintain the integrity of the program, including, but not limited to, provisions to avoid conflicts of interest within the rating and certification process.
6. The entity shall be a nonprofit organization and shall maintain reasonable, nondiscriminatory fee schedules for the services it provides, and shall make its fee schedules, the financial information on which fees are based, and financial statements available to its members for inspection.
7. The entity shall provide hearing processes that give laboratories, manufacturers and certifying agencies a fair review of decisions that adversely affect them.
8. The entity shall maintain a certification policy committee whose procedures are designed to avoid conflicts of interest in deciding appeals, resolving disputes and setting policy for the certifying organizations in its program.
9. The entity shall publish at least annually a directory of products certified and decertified within its program.
10. The entity itself shall be free from conflict-of-interest ties or to undue influence from any particular roofing product manufacturing interest(s), testing or independent certifying organization(s).
11. The entity shall provide or authorize the use of labels that can be used to meet the requirements for showing compliance with the requirements of Sections 141, 142, and 151 (b), and this section.
12. The entity's certification program shall allow for multiple participants in each aspect of the program to provide for competition between manufacturers and between testing labs.

NOTE: Authority cited: Section 25402.1, Public Resources Code. Reference: Section 25402.1, Public Resources Code.

SECTION 10-114 – DETERMINATION OF OUTDOOR LIGHTING ZONES AND ADMINISTRATIVE RULES FOR USE

This section establishes rules for implementing outdoor lighting zones to show compliance with Section 147 of Title 24, California Code of Regulations, Part 6.

- (a) **Lighting Zones.** Exterior lighting allowances in California vary by Lighting Zones (LZ).
- (b) **Lighting Zone Characteristics.** TABLE 10-114-A specifies the relative ambient illumination level and the statewide default location for each lighting zone.
- (c) **Amending the Lighting Zone Designation.** A local jurisdiction may officially adopt changes to the lighting zone designation of an area by following a public process that allows for formal public notification, review, and comment about the proposed change. The local jurisdiction may determine areas where Lighting Zone 4 is applicable and may increase or decrease the lighting zones for areas that are in State Default Lighting Zones 1, 2 and 3, as specified in TABLE 10-114-A
- (d) **Commission Notification.** Local jurisdictions who adopt changes to the State Default Lighting Zones shall notify the Commission by providing the following materials to the executive director:
 1. A detailed specification of the boundaries of the adopted Lighting Zones, consisting of the county name, the city name if any, the zip code(s) of the redesignated areas, and a description of the physical boundaries within each zip code.
 2. A description of the public process that was conducted in adopting the Lighting Zone changes.

3. An explanation of how the adopted Lighting Zone changes are consistent with the specifications of Section 10-114.

The Commission shall have the authority to not allow Lighting Zone changes which the Commission finds to be inconsistent with the specifications of Section 10-114.

TABLE 10-114-A LIGHTING ZONE CHARACTERISTICS AND RULES FOR AMENDMENTS BY LOCAL JURISDICTIONS

Zone	Ambient Illumination	State wide Default Location	Moving Up to Higher Zones	Moving Down to Lower Zones
LZ1	Dark	Government designated parks, recreation areas, and wildlife preserves. Those that are wholly contained within a higher lighting zone may be considered by the local government as part of that lighting zone.	A government designated park, recreation area, wildlife preserve, or portions thereof, can be designated as LZ2 or LZ3 if they are contained within such a zone.	Not applicable.
LZ2	Low	Rural areas, as defined by the 2000 U.S. Census.	Special districts within a default LZ2 zone may be designated as LZ3 or LZ4 by a local jurisdiction. Examples include special commercial districts or areas with special security considerations located within a rural area.	Special districts and government designated parks within a default LZ2 zone maybe designated as LZ1 by the local jurisdiction for lower illumination standards, without any size limits.
LZ3	Medium	Urban areas, as defined by the 2000 U.S. Census.	Special districts within a default LZ3 may be designated as a LZ4 by local jurisdiction for high intensity nighttime use, such as entertainment or commercial districts or areas with special security considerations requiring very high light levels.	Special districts and government designated parks within a default LZ3 zone may be designated as LZ1 or LZ2 by the local jurisdiction, without any size limits.
LZ4	High	None.	Not applicable.	Not applicable.